EXHIBIT 3

EXPERT REPORT OF DR. TERRY SPEAR

1. I am Dr. Terry M. Spear. I reside at 110 South Hauser, Opportunity, Montana.

2. I hold a Ph.D. in industrial hygiene, and am a professor of industrial hygiene at Montana Tech of the University of Montana, in Butte. My Curriculum Vitae is attached as Exhibit "A."

3. I have worked on industrial hygiene issues relating to the W.R. Grace mine and mill near Libby, Montana, for about 11 years. I testified in trials in Libby in 1997, 1998 and 1999. I have reviewed hundreds of documents relating to the mine and mill. I have visited the site. I have interviewed dozens of former employees. I have read dozens of depositions. I am generally familiar with the vermiculite mining and milling operation near Libby, Montana.

4. I am co-author of Ward, T.J., Spear, T. et al, "Trees as Reservoirs for Amphibole Fibers in Libby, Montana," Science of the Total Environment, vol 267, issue 1, August 2006 (pp. 1-6). In 2004-2006, tree bark samples were collected in support of a proposed firewood harvesting commercial logging exposure study in the Libby area. Bark samples were collected to simulate a probable amphibole fiber concentration gradient emanating from the mine from forests around the W.R. Grace mine. Bark samples were collected from three separate, heavily forested locations within the Superfund site, within the town of Libby and on the railroad line seven miles west of town, and two miles

northeast of the mine on United States Forest Service (USFS) road 4872 in an area that had been recently clear-cut. Asbestos concentrations on bark near the mine were greater than one hundred million fibers per square centimeter of tree bark surface area. Asbestos concentrations on bark within the town of Libby showed a quarter of a million fibers per square centimeter, and the tree bark sample collected from a ponderosa pine tree located on the railroad line seven miles west of town (note that the vermiculite mine is east of town) showed 5.8 million fibers of asbestos per square centimeter of tree bark surface area. Tree bark samples collected two miles northeast of the mine on United States Forest Service (USFS) road 4872 showed asbestos concentrations ranging from none detected to 2 million fibers per square centimeter of tree bark surface area.

5. I am co-author of Hart, J.F., Spear, T.M. et al, "Evaluation of Asbestos Exposures During Firewood Harvesting Simulations in Libby, Montana - Preliminary Data," Ann. Occup. Hyg., vol. 51, No. 8, November 2007. The study demonstrated that amphibole fibers are released from tree reservoirs during firewood harvesting activities in asbestos-contaminated areas and that the potential for asbestos exposure exists during such activities.

6. Mining of vermiculite began in the 1930s. The old dry mill was constructed part way down the mountain from the mining operations in about

1937. In this open cut mining operation, blasting loosened materials. Shovels loaded materials into trucks. Roughly half of the materials loaded were dumped over the side of the mountain as waste. Trucks moved the ore down to the transfer point, where the material was roughly sorted in a grizzly. The ore then traveled on a conveyor down to bins next to the dry mill. The ore was then introduced into the top of the dry mill and passed through a series of hammer mills, screens, and chutes through six levels in the dry mill to the lowest level. There the product (vermiculite concentrate) was loaded into small railroad cars called "skip cars," and was transported down to the lower ore bins. From there the concentrate was trucked down to river storage, to large bins identified by grade. As necessary, the concentrate was released into tunnels below the river storage bins onto a conveyor belt and was moved across the Kootenai River. At the loading dock on the other side of the Kootenai River, the vermiculite concentrate was loaded into railroad cars. The cars were pushed into the Libby railroad yard near the downtown area of Libby. There the railroad cars were joined to eastbound or westbound trains. About 10-16 car loads of vermiculite concentrate per day left Libby.

7. The mining operations were extremely dusty. Virtually every time the ore or the vermiculite concentrate was moved clouds of dust were created, except in wet weather. There was no area in the mining operation which was

not dusty. Workers recounted that all flat surfaces were dusty. There was often visible dust in the air, as can be seen from photos of the dry mill and blasting operations.

8. The community of Libby lies in a mountain valley. The valley airshed functions somewhat like a bowl. Pollutants when disturbed by wind or human activity tend to be recycled into the bowl.

9. W.R. Grace & Co. and its predecessors introduced raw ore and vermiculite concentrate into the community of Libby in a number of ways. Next to the railroad tracks near the downtown area, Grace had a bagging plant where a limited quantity of vermiculite concentrate was trucked to town, dumped, kept in open storage bins and then placed in bags and loaded onto railroad cars. Again, virtually every time the vermiculite concentrate was moved, dust was created. Next to the bagging plant was an expansion plant, where vermiculite concentrate was exfoliated or "popped" into products which could be used for insulation and other purposes. When the expansion plant was operating, considerable dust was generated. This is shown in the film "Dust to Dust," with boys playing baseball with the expansion plant in the background.

10. Grace had no fences around the storage bins and piles of vermiculite concentrate. Children often played on the piles. Community members were allowed to take the waste from piles for use in gardens, lawns,

or insulation.

In the 1950s and 1960s, the railroad cars hauling vermiculite concentrate were generally open cars which emitted dust when moved. In the 1970s, hopper cars were used, but they often leaked concentrate into the railroad yard. Recently BNSF Railway has cleaned the Libby railroad yard by removing several inches of top soil.

11. The result of the above, and other pathways, was "widespread contamination of the Libby, Montana area." Peipins (2003), abstract. Of 7,307 participants in the ATSDR screenings in 2000 and 2001, only 307 had worked for W.R. Grace, but 1,103 had had vermiculite exposure at non-Grace jobs, 3,017 had vermiculite insulation in Lincoln County homes, 3,702 had used vermiculite for gardening, 4,722 had played at the baseball field near the expansion plant, and 2,442 had played on vermiculite piles.

12. Various tests on the dust showed 27%-40% asbestos. Exh. 21, p.1; Exh. 35, Exh. 45. (Exhibit references are to Common Exhibits used in Grace trials 1997-2000, attached on CD).

13. The industrial hygiene literature shows that asbestos exposure was well understood as a hazard by the 1930s. The connection between asbestos exposure and lung cancer was established in the 1940s. The danger of asbestos exposure to workers' families and the community was recognized in

the 1940s. The connection between asbestos exposure and mesothelioma was well established by 1960. The above was clear in the occupational medicine and industrial hygiene literature, and W.R. Grace and its predecessor Zonolite Company should have been well aware of it.

14. The central principles of industrial hygiene literature are to study, to warn, and to protect. These principles extend not only to the Grace workers in Libby, but also to family members of workers, and to the community. W.R. Grace and its predecessor Zonolite Company did not adequately study, warn, or protect the workers, their family members, or the community of Libby.

15. Let us examine what Grace knew by 1964. The company knew of the presence of asbestos from the 1920s forward. Exh. 90.4. The company knew asbestos was toxic by 1955 Exh. 14. Per industrial hygiene literature the company should have known this through the literature in the 1940s or earlier. In 1956, the State of Montana, Board of Health, Division of Disease Control performed an inspection at the mine. The State found high concentrations of asbestos, violations of industrial hygiene literature and warned of the "considerable toxicity of asbestos." Exh. 17. The company recognized at that time that asbestos was a serious health hazard. Lovick Depo, 87:10. In 1959 a company chest x-ray series showed 36% of the workers with abnormal chest x-rays. Exh. 26. Annual chest x-rays 1964-1980 showed 25-30% abnormals.

Exh. 193.17, p.36. The company knew in 1959 that worker Glenn Taylor was diagnosed with asbestosis. He died of asbestos disease in 1961. Lovick Depo, 98:9, Exh. 22, Exh. 67. Three workers died of asbestos disease in 1961. Exh. 225. The trial testimony of Earl Lovick, Assistant Manager for Grace in Libby, states:

> Q: And you knew at least by 1962 that this - you had a serious health problem and in fact that your men were being diseased, correct?
>
> A: Yes sir.
>
> Q: It wasn't at risk of disease, they were in fact being diseased, correct?
>
> A: Some of them yes sir.
>
> Q: And they were in fact dying correct?
>
> A: Some of them yes sir.

Schnetter v. W.R. Grace Transcript 4/30/97, p.381:4.

> Q: You had absolute proof that these men had been diseased up there at the mill by 1966 at the latest? Is that true?
>
> A: Yes sir, that would be true.
>
> Q: And you have told us that none of the records you had on that were shared with men. Is that true? That is what you told us correct?
>
> A: Yes sir.

> Q: And so at this point it wasn't just a matter of men being exposed to something that might injure or kill them, these men were already injured and dying, and they were continuing to be exposed every day, is that true?
>
> A: Yes sir.

Schnetter v. W.R. Grace Transcript 4/29/97, p.155:4.

Grace continued to send men into the dry mill for eight more years after 1966.

16. Grace knew of the connection between asbestos exposure and lung cancer through the 1964 State Report, and was therein informed of "possible widespread carcinogenic air pollution." Exh. 53. Risks of asbestos exposure to community members were quite clearly spelled out to Grace executives in 1968. Exh. 119.

17. In 1967 a test was done on the large "600 fan" on the dry mill. Exh. 117. The estimate was 24,000 pounds per day in dust emitted by the large stack on the dry mill. At 25-30% asbestos, this was about 8,000 pounds of asbestos emitted into the air from a single source, the large stack on the dry mill.

18. Residents have reported that Libby in 1950-1990 was a dusty place. The manager of Grace operations estimated in 1965 that "you could get a five count in downtown Libby on many dry days." Exh. 79. This would have

been 5 mppcf, or about 20 fibers per cubic centimeter. See Amandus (1987a), p.5, Libby Studies, Expert report of Dr. Alan C. Whitehouse. In 1975, Grace performed measurements of ambient air at three locations in Libby and obtained 0.67, 1.1, and 1.5 f./cc, indicating a serious hazard from breathing the air in Libby. Exh. 20, Expert Report of Dr. Alan C. Whitehouse.

19. Grace and Zonolite Company did not adequately study the asbestos hazard. Even though the rate of abnormal chest x-rays was extremely high from 1959 forward, and even though full physical examinations were first suggested to the company in 1959 (Exh. 26), Grace never did have the workers examined by a physician who could collect the chest x-rays, lung function tests, the physical examination and history of asbestos exposure, then report and advise the patient. This was true all the way through until Grace closed operations in 1990. Accordingly, Grace's medical surveillance program was inadequate at all times up to 1990.

20. The industrial hygiene literature requires that the company study the hazard, consult appropriate physicians and scientists, inform those at risk, and ideally publish the results in the literature. W.R. Grace did not do this.

21. In fact, Grace declined and obstructed medical studies, and misrepresented facts to local Libby doctors. The history provides a clear record of obstruction. In 1959, on receipt of the Glenn Taylor diagnosis of asbestosis,

Dr. Knight of the Montana State Tuberculosis Sanitarium inquired about asbestos in the dust from the ore. Exh. 23. The company replied that "the dust in our mill has never been analyzed as such." Exh. 24. This statement was false. The 1956 State Report shows "the concentration of asbestos found in the dust, which varies from eight percent to twenty-one percent." Exh. 17, p.3. Also, the 1959 State Report found that airborne asbestos was in an average concentration of 27%. Exh. 21, p.1.

22. In 1959, Dr. Cairns, a local doctor in Libby, proposed a study on the workers with abnormal chest x-rays. Exh. 26. The company declined. In 1964, Dr. Nelson of Libby performed lung function tests, and proposed further study on workers with abnormal chest x-rays, and offered to do the work on his own time. Exh. 54, 56. Grace declined. Exh. 72.

23. In 1965, Dr. Spicer, a pulmonologist and consultant to Maryland Casualty, Grace's Workers' Compensation carrier, reviewed Dr. Nelson's records and estimated a "20% incidence of asbestosis in the workers studied." Exh. 73. Dr. Spicer suggested a thorough study. Exh. 73. Grace declined. Exh. 85, p.5.

24. In 1967, the first asbestosis occupational disease case came to hearing. Grace's attorney reviewed the existing State Board of Health reports, and consulted with Dr. Little, the radiologist then reading the chest x-rays on

Libby workers. The attorney's letter (Exh. 92a) notes:

> Dr. Little stated that we did indeed have a severe problem, and that we might expect a good many claims involving asbestosis. . . . apparently the only persons aware of the studies are the insured's officials and Dr. Little. Again, as you may well realize, I would much like to avoid having evidence presented by the opposing party which would reveal the extent and severity of the problem with which we are concerned. p.3

In that same document, the attorney informed the company:

> Nevertheless, as I informed you, I would hesitate to allow the evidence of the State Board reports if it is possible to keep them out of the hands of the Industrial Accident Board, and through it, the general public. p.2

Grace settled the case.

25. In 1968, the U.S. Public Health Service requested a study on the Libby workers. Exh. 104. Grace declined. Exh. 108. In 1969, Grace performed an in-house study on the 1969 chest x-ray series, finding 92% abnormals in workers with over 21 years service, and 17% abnormals in workers with under six years of service. Exh. 130.4. This study was not disclosed. In 1976, Grace performed a review of death certificates, finding a lung cancer rate five times the expected. Exh. 183.12. This study was not disclosed. In 1977, Dr. McMahon of Harvard proposed a study. Exh. 182.30. Grace declined. Exh. 183.

26. In 1977, Grace performed an in-house study in which hamsters

were injected with Libby tremolite asbestos. The study found a high association of mesothelioma with Libby tremolite. Exh. 184b1. Later, H. Eschenbach, Director of Toxicology and Industrial Hygiene for Grace, represented to Dr. Irons of Libby that Libby tremolite had not been associated with mesothelioma. This statement was false. In 1978, Dr. Irons of Libby, having found asbestos disease in his patients, requested data and requested that a major study be undertaken, including effects on workers and "their families and the community." Exh. 184b. Grace declined. See Exh. 188z (H. Eschenbach, Grace Director of Toxicology and Industrial Hygiene, stated "I think it best that we just let Irons sit and meditate a while.")

27. In 1980, NIOSH proposed a study on the Libby workers. Grace's response was to consider alternatives, including to "obstruct and block" the study. Exh. 192.4.

28. The above constitutes a long series of violations of industrial hygiene literature and common decency, and no doubt was a contributing factor in the continuing pattern of disease and death in the Libby workers, their families and community members until the present time.

29. A second central principle of industrial hygiene literature requires that the company must warn workers, their families, and the community of known hazards in all settings. In 1979, new federal regulations required a

miner education program. Before that Grace did not discuss the hazards of asbestos exposure with workers, or even with lower level supervisors. Lovick Depo, 763:8. Workers will take precautions, especially if they know they may bring toxic dust home on their clothes or in their vehicles, which may then affect their wives and children. Grace workers had no such opportunity in the 1950s, 1960s or 1970s up to June 1979. In fact, the Chief Engineer in Libby was reprimanded for discussing the asbestos with an outsider. Exh. 159. The memo states, "The point I am trying to get across is that our present policy is to tell no one anything, no visitors or discussion of our operations period." After 1979, Grace told some workers that the material was not asbestos, it was tremolite. Grace also did nothing to warn family members or the community of the hazards of asbestos exposure, all in breach of the standards of industrial hygiene literature.

30. A third central principle of industrial hygiene literature requires that workers, their families, and the communities must be protected. The hazard must be controlled. Asbestos disease in Libby was largely preventable. A review of the trial transcripts shows there was no adequate housekeeping and maintenance at the Grace operations, whereas this was accomplished elsewhere. Bag houses and vacuum technology were feasible, and in place elsewhere. Wet methods were feasible. The dry mill was finally replaced in

1974, with a wet mill. However, the rest of the Grace mining operations remained dusty. There was not a proper respiratory protection program. Protection from the hazards of asbestos had been written about by Merewether and Price in 1930.

31. Grace never supplied showers and lockers for the employees. As a result, workers brought home asbestos dust on their clothing. In 1983, Grace declined to spend $250,000 on a change house for workers. Exh. 193.77. In this memo the Grace Plant Manager discusses the opinion of Dr. Gill, the radiologist reading Libby worker x-rays, that he was also seeing a pattern of abnormality in the chest x-rays of Libby community members.

32. Grace allowed community members to take vermiculite waste from piles on company property, thus spreading asbestos contamination into the community. Grace allowed children to play on piles of vermiculite waste on company property.

33. Vermiculite mountain is located about seven miles northeast of Libby, Montana. The mineral vermiculite was first discovered there in the 1920s. The presence of naturally occurring asbestos as an impurity in the vermiculite was known in the 1920s. Exh. 90.4. There were attempts to market the asbestos in the 1920s and in about 1962. Exh. 41-44.

34. Grace knowingly endangered the health of workers, family members

of workers, and community members in Libby for decades. This constituted gross violations of applicable industrial hygiene standards.

35. Asbestos exposure was recognized as a deadly hazard by the 1930's. The diagnosis of asbestosis was established in 1924. In 1930, Dr. Merewether and Dr. Price published a study proving asbestos exposure causes deadly lung disease. The same year, the Journal of the American Medical Association reported a fatal case of asbestosis in an asbestos miner. Throughout the 1930's, dozens of articles appeared in scientific literature confirming that asbestos exposure causes fatal disease.

36. Tremolite asbestos, like other forms of asbestos, was recognized in industrial hygiene literature as highly toxic by 1951. Vorwald (1951). The Montana Supreme Court has found asbestos dust was a well known toxic inhalant prior to 1956. Orr v. State of Montana, 2004 MT 354, ¶4, 324 Mont. 391, 106 P.3d 100. Traditionally, Libby asbestos has been referred to as "tremolite." More recently, sophisticated analysis has shown that Libby asbestos is 84% winchite, 11% richterite, and 6% tremolite (Meeker 2003).

37. In the 1940's, the link between asbestos and lung cancer was recognized in the medical and industrial hygiene communities. The link between asbestos and cancer was referenced in an article by Lynch and Smith, in a widely disseminated journal in 1935. Several articles in the 1940's

referenced the link between asbestos and cancer, including a 1949 article in the Journal of the American Medical Association. In 1955, a study published by Sir Richard Doll conclusively proved that asbestos causes cancer.

38. Drinker and Hatch, Industrial Dust (McGraw-Hill, 1954), is a standard authoritative industrial hygiene text. At p. 39, the text notes the 1947 total of 160 deaths from asbestosis in Great Britain. At page 46, the text demonstrates a 10 times greater than normal incidence of lung cancer in asbestoctics.

39. In 1960, Dr. Wagner published a study proving exposure to asbestos causes mesothelioma. In 1964, Dr. Irving Selikoff published a landmark study further demonstrating that exposure to asbestos causes the fatal diseases asbestosis, lung cancer, and mesothelioma.

40. By the 1960's, hundreds of articles and studies published in the industrial hygiene and medical literature established that asbestos exposure is harmful and can be fatal. These materials were readily available to anyone interested in learning about the dangers of asbestos. As a standard practice, industrial hygienists review industrial hygiene literature, as well as occupational medicine literature.

41. Environmental contamination from asbestos-containing materials can occur not only during construction and demolition, but also throughout the

life of the structure (EPA-450/2-78-014, 1978). It has been known since 1930 that bystanders are at risk of significant asbestos exposure. That is, people who do not themselves work directly with asbestos materials are at risk of significant exposure caused by others who are working with asbestos materials. For this reason it was recommended in the 1930s that dusty processes involving asbestos be isolated from other work areas to avoid exposing people whose presence is not necessary in the dustier operations, or to perform the dustier operations with asbestos at times when there is a minimum number of other workers present. See, e.g., Hoffman, 1918; Oliver, 1927; Merewether, 1930; Merewether, 1933; Ellman, 1933, page 1937 (dog kept in factory to catch rats dies of asbestosis).

42. Asbestos fibers in the air are known to travel long distances from their source or point of origin. The Environmental Protection Agency (EPA) states that,

> During the time that the [asbestos] fiber remains airborne, it is able to move laterally with air currents and contaminate spaces distant from the point of release. Significant levels of contamination have been documented hundreds of meters from a point source of asbestos fibers, and fibers also move across contamination barrier systems with the passage of workers during removal of material.
>
> The theoretical times needed for such [respirable] fibers to settle from a 3 meter (9 ft) ceiling are 4, 20 and 80 hours in still air. Turbulence will prolong the settling and also cause re-entrainment of fallen fibers. (Sprayed Asbestos Containing Materials in

Buildings, A Guidance Document, U.S. Environmental Protection Agency, March 1978).

43. Because of their shape and small size, asbestos fibers, particularly those of respirable dimensions, remain airborne for hours once they are introduced into the air. Once they are airborne the asbestos fibers will drift long distances from their source. Movement and air turbulence causes fibers that have settled out of the air to be reintroduced (re-entrained) into the air and to drift long distances from their source. In addition, the human traffic on a worksite can also be expected to disburse asbestos throughout the entire work area. For this reason asbestos fibers do not respect work areas or job classifications. It has been repeatedly demonstrated that a source of asbestos emission in the air puts everyone in the general vicinity (bystander exposure) at risk. Because of the microscopic size of asbestos fibers, and their aerodynamic properties, typical housekeeping activities such as sweeping tend not to remove that asbestos from the plant. Rather, such activities have the effect of stirring up and re-entraining the asbestos that is in the location, ensuring that it is available for inhalation by workers in the vicinity.

44. The practice and goal of industrial hygiene is to protect the health of human beings by anticipating, recognizing, evaluating, and controlling hazards in the workplace. Reasonable and prudent industrial hygiene practice

since the early 1900's required that workplaces be evaluated for potential employee exposure to toxic materials and that controls be implemented on any worksite where there are employees with potential exposure to toxic dust such as asbestos.

45. A 1982 Environmental Protection Agency (EPA) study reported that approximately 21 to 26% of the unprocessed ore and 0.3 to 7% (by weight) of the concentrated vermiculite was asbestos, while a 1984 WR Grace study reported 3.5 to 6.4% of the unprocessed ore and 0.4 to 1% (by weight) of the concentrated vermiculite was asbestos (United States Department of Health and Human Services Agency for Toxic Substances and Disease Registry, Chemical-Specific Health Consultation: Tremolite Asbestos and Other Related Types of Asbestos, 2001, page 12).

46. Soil containing Libby asbestos at levels equal to or greater than 1% are generally considered a health hazard requiring remediation. Depending on site-specific exposure scenarios, remediation or other measures may also be appropriate to prevent exposure to soils containing less than 1% Libby asbestos (Anderson et.al. 2005, page 5). Federal standards regulate materials that contain more than 1% asbestos (EPA US Environmental Protection Agency, 1987, and EPA US Environmental Protection Agency, 2003b); therefore, the 1% level has been used as an action level for soil remediation activities at a

number of sites. It is important to note that this 1% standard is not derived from a risk assessment or any other type of health-based analysis; therefore, it does not ensure that airborne asbestos fibers resuspended by disturbing these soils will be below levels protective of human health. In fact, recent activity-based studies have shown that disturbing soil containing less than 1% Libby asbestos can resuspend fibers and generate airborne concentrations at or near the OSHA permissible exposure limit (U.S. Environmental Protection Agency, 2001c and U.S. Environmental Protection Agency, 2004).

47. EPA collected data from personal and stationary air monitors in the immediate vicinity of people actively engaged in disturbing vermiculite insulation. This scenario was intended to assess exposures that might be experienced either by homeowners who engaged in activities in unfinished attic areas, or for contractors who might come into contact with vermiculite during repair or remodeling activities. These data demonstrated that active disturbance of vermiculite results in very high concentrations of fibers as measured by both phase-contrast microscopy (PCM) and transmission electron microscopy (TEM) phase-contrast microscopy equivalents (PCME). The highest airborne concentration of 3.3 total asbestos fibers per cubic centimeter (f/cc) by TEM occurred during the simulation with Zonolite Vermiculite. In Phase 2, levels of airborne asbestos fibers were detected during seven simulations

conducted in an artificial containment system. Bulk analysis of the Zonolite product indicated that it contained trace amounts of asbestos fibers (PLM: <1% tremolite; TEM: <0.1% tremolite/actinolite). Airborne asbestos fibers were detected in approximately half of the total air samples collected (total from all personal and stationary air samples combined). The maximum airborne concentration of 4.3 total actinolite f/cc by TEM occurred during the first simulation with dry vermiculite (U.S. Environmental Protection Agency, 2003).

48. These findings are consistent with previous studies conducted by W.R. Grace. These "drop tests" demonstrated that fiber concentrations in air resulting from pouring vermiculite insulation onto the floor under controlled conditions can be extremely high even when bulk concentrations in the vermiculite are less than 1% (Grace 1976).

> These results clearly indicate that vermiculite insulation in homes or commercial buildings is a substantial reservoir of asbestos-contaminated source material that may lead to on-going exposure of area residents and workers (Christopher P. Weis Memorandum December 20, 2001).

49. Addison (1995) generated airborne dusts from a series of soils with varying levels of asbestos contaminations. The study concluded that "even the lowest bulk amphibole concentration tested (0.001%) was still capable of producing measurable airborne asbestos concentrations (greater than 0.01 fibers ml-1)" (Addison, J. 1995). Vermiculite: a review of the mineralogy and

health effects of vermiculite exploitation. Reg. Tox. Pharm. 21: 397-405). Libby asbestos is amphibole asbestos.

50. The National Institute for Occupational Safety and Health (NIOSH) has stated that "any vermiculite that originated from the mine near Libby, Montana, should be regarded as potentially contaminated with asbestos. As with any asbestos-containing or asbestos-contaminated material, the only way to know the amount of asbestos present is to have the material tested. Bulk sampling is reliable only when over 1% of the material is asbestos. Negative results from bulk samples can therefore be falsely reassuring when less than 1% of the sample is asbestos. However, disturbing contaminated vermiculite with less than 1% asbestos can still result in hazardous concentrations of airborne asbestos fibers." NIOSH recommends workers consult Occupational Safety and Health Administration (OSHA) asbestos standards for general industry and construction (29 CFR 1910.1001 and 1926.1101) when work will involve vermiculite that is known or presumed to be contaminated with asbestos. If the vermiculite is known or presumed to be contaminated with asbestos, NIOSH recommends the following general guidelines for limiting asbestos exposure:

- Avoid handling or disturbing loose vermiculite
- Isolate work areas with temporary barriers or enclosures to

avoid spreading fibers

- Use wet methods, if feasible, to reduce exposure
- Never use compressed air for cleaning
- Avoid dry sweeping, shoveling, or other dry clean-up methods
- Use disposable protective clothing or clothing that is left in the workplace. Do not launder work clothing with family clothing
- Use proper respiratory protection.
- Dispose of waste and debris contaminated with asbestos in leak-tight containers in accordance with OSHA and EPA standards (DHHS (NIOSH) Publication Number 2003-141, May 2003).

51. As part of the Phase 2 study, EPA collected data from personal and stationary air monitors in the immediate vicinity of people actively engaged in disturbing vermiculite insulation. This scenario (referred to as Scenario 3) was intended to assess exposures that might be experienced either by homeowners who engaged in activities in unfinished attic areas, or for contractors who might come into contact with vermiculite during repair or remodeling activities. The results of personal air samples [transmission electron microscopy (phase contrast microscopy –asbestos) TEM (PCME-asb)] showed a mean concentration of 0.309 f/cc with a range of 0.042 – 1.057 f/cc. The results of stationary air samples (TEM (PCME-asb) showed a mean concentration of 0.309 f/cc with a range of 0.023 – 0.789 f/cc.

52. For chrysotile asbestos it is thought by some authors that 25 fiber per cubic centimeter years (f/cc years) of exposure is necessary to cause asbestosis. For amphiboles in general and Libby amphiboles in particular, the threshold exposure may be 2 f/cc years or less. See also Sluis-Cremer et al. (1990) (an amphibole study), page 440, "Table 5 showing that even when exposed to an average fiber concentration of 2 f ml^{-1} or less, very significant proportions of the men have developed asbestosis."

53. Another important issue pertaining to the toxicity of asbestos is fiber morphology. For the purposes of counting asbestos fibers in air samples, regulatory agencies commonly count particles that have lengths ≥5 µm and length to width ratios ≥3:1 as fibers. For detecting asbestos fibers in bulk building materials, particles with length:width ratios ≥5:1 are counted as fibers. The current occupational exposure limit for asbestos is 0.1 f/cc (8-hour time weighted average) for fibers ≥ 5 micrometers (um) in length, with an aspect ratio (length:width) ≥ 3:1 (OSHA 2001 (ACGIH 2001).

The current standard method for determining airborne asbestos particles in the U.S. workplace is the National Institute for Occupational Safety and Health (NIOSH) Method 7400 which uses phase contrast light microscopy (PCM) (NIOSH 1994a, 1994b). Fibers are collected on a filter and counted with

400-450x magnification. The method does not accurately distinguish between asbestos and non-asbestos fibers, and cannot detect fibers thinner than about 0.25 um.

Polarized light microscopy is frequently used for determining the asbestos content of bulk samples of insulation or other building materials (see, for example, NIOSH Method 9002 [NIOSH, 1989] and OSHA method ID-191 [OSHA, 1994]). This method also enables qualitative identification of asbestos types using morphology, color, and refractive index.

Transmission electron microscopy (TEM) and scanning electron microscopy (SEM) methods can detect smaller fibers than PCM and can be used to determine mineral habit in bulk materials that may become airborne. NIOSH Method 7402, Asbestos by TEM, is used to determine asbestos fibers in the optically visible range and is intended to complement PCM (NIOSH Method 7400). However, NIOSH Method 7402 still counts fibers ≥ 5 micrometers (um) in length.

Consequently, the current regulatory methods of counting fibers based on fiber length and aspect ratio may not adequately describe the risk of asbestos-related health effects in that the concentration of fibers < 5 um may contribute to health risks. Fiber size, shape, and composition contribute

collectively to health risks in ways that are currently being evaluated. A study by Suzuki (2005) concluded that "contrary to the Stanton hypothesis, short, thin asbestos fibers appear to contribute to the causation of human malignant mesothelioma. Such fibers were the predominant fiber type detected in lung and mesothelial tissues from human mesothelioma patients. These findings suggest that it is not prudent to take the position that short asbestos fibers convey little risk of disease." Animal and *in vitro* studies also suggest that fibers < 5 um may also play a role in fibrosis, particularly under conditions of overload. Intense exposures may result in overload, limiting clearance of small fibers (Sullivan, 2007; ATSDR, 2003).

Hart et. al. (2007) reported that 69% of the fibers collected in the Libby area were < 5 um in length. This is consistent with ambient air sampling trends reported for Libby, using AHERA TEM analysis, of 65% of the airborne fibers collected at Libby being < 5 um in length (ATSDR, 2003). In addition, fiber dimension analysis of bark samples reported by Ward et al, showed the majority of the asbestos fibers detected were < 5 um in length.

54. The data and other information considered in forming the above opinions and observations includes:

a. The Expert Report of Dr. A.C. Whitehouse, which I rely upon.

b. The common exhibits for the Grace trials in Libby 1997-2000 attached on CD.

c. Transcripts of the trials in *Skramstad v. W.R. Grace* (1997), *Benefield v. W.R. Grace* (1998) and *Finstad v. W.R. Grace* (1999), on CD.

d. Depositions upon Earl Lovick, Assistant Manager of the W.R. Grace operations of Libby, Montana, on CD.

e. Industrial hygiene literature on asbestos and disease.

55. I am being compensated at the rate of $150 per hour.

56. A listing of other cases with trial or deposition testimony is attached as Exhibit B.

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DATED this 29 day of December, 2008.

Terry M Spear

Dr. Terry ~~M.~~ Spear

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W.R. Grace Company. December 1976, June/July 1982. Unpublished data: air sampling record sheets.

Curriculum Vitae
May 2008

I. PERSONAL DATA

Name:	Terry M. Spear
Birth Date:	06/23/52
Birthplace:	Butte, Montana
Citizenship:	United States

II. EDUCATION

Baccalaureate Degree (B.A.):	**Microbiology**; June 1975; University of Montana, Missoula, Montana.
Master of Science (M.S.)	**Environmental Health**; December 1980, University of Minnesota.
Doctor of Philosophy (Ph.D.):	**Environmental Health**; April 1996, University of Minnesota
Dissertation Title:	Assessment of Workers' Exposure to Lead-Containing Aerosol

III. PROFESSIONAL EXPERIENCE

Employment (full-time):

Faculty; Safety, Health and Industrial Hygiene Department: 8/83 to present
Montana Tech of The University of Montana, School of Mines.
Assistant Professor (1983-1988), Associate Professor (1989-96), Full Professor, Tenured (1997-present)
Develop and teach courses in academic safety and industrial hygiene programs, and the Montana Tech continuing education program. Involved in all aspects of advising, developing, and directing of student research and academic progress.

Teaching Responsibilities:
Teach industrial hygiene, hazardous materials management, air sampling and analysis, instrumentation for industrial hygiene, welding safety and health, industrial respiratory protection, epidemiology, radiological safety. Also teach a variety of short courses on subjects including hazardous materials handling and response, confined space entry, construction safety, petroleum production safety, welding safety and health, safety administration, safety engineering.

Senior Engineer, 11/80 to 8/83
EG&G Idaho Inc., Idaho National Engineering Laboratory (INEL), Idaho Falls, Idaho. Provided industrial consultation to facility management, including investigation and monitoring of work environments, ventilation evaluations, design and work practice reviews, hazardous materials oversight, and worker education and training.

Employment (part-time):

Affiliate Professor, 9/81 to 5/82
University of Idaho, Idaho Falls, Idaho. Instructor for Mines 433, Environmental Health I, Industrial Hygiene, and Mines 434, Environmental Health II, Occupational Stress.

Industrial Hygiene Technician, 8/80 to 11/80
Honeywell Inc., Defense Systems Division, St. Paul, Minnesota. Evaluated, documented and recommended procedures to control worker exposure during processing of depleted uranium.

EXHIBIT
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III. PROFESSIONAL EXPERIENCE (continued)

Employment (part-time) (continued):

Industrial Hygiene Intern, 6/80 to 8/80
Sperry Univac, Defense System Division, St. Paul, Minnesota. Evaluated chemical safety program through monitoring and work practice reviews. Assisted in the development of an occupational exposure database.

Industrial Hygiene Technician, 6/79 to 9/79
Anaconda Mining Company, Anaconda, Montana. Conducted monitoring program and ventilation surveys to determine compliance with OSHA arsenic standard.

Related Professional Experience:

Provide consultation to a variety of general industry and mining companies on program document development, health and safety compliance auditing, regulatory issues, industrial hygiene field sampling, on-site hazard assessments, and training. Over 20 years experience in providing expert witness testimony involving consultation and participation in more than 50 personal injury and illness liability litigation cases for plaintiffs, defendants, private industry, and insurance companies.

IV. RESEARCH AWARDS

Weatherization protocols in homes containing vermiculite and other asbestos-containing material. U.S. Department of Health and Human Services REACH Grant, December 2006.

Yellowstone Winter Use Personal Air Monitoring, Rocky Mountains Cooperative Ecosystem Studies Unit, Cooperative Agreement Number H1200040001, January 2006. Yellowstone Winter Use Air Monitoring, continuation of UMT 15, *J1580050167*, 2006.

Yellowstone Winter Use Personal Air Monitoring, Rocky Mountains Cooperative Ecosystem Studies Unit, Cooperative Agreement Number H1200040001, January 2005.

Occupational Exposure to Submicron Particle Mass and Number Concentrations from Diesel Emissions In an Underground Mine, Supplemental Research Training Grant, NIOSH, 2002 – 2003.

Lead Exposure Associated with Weatherization Activities in Homes Containing Lead Based Paint, Department of Energy, Spring 2002.

Chemical speciation of two different sources of copper slag, Supplemental Research Training Grant, NIOSH, 2001 – 2002.

Airborne assessment of abrasive blasting aerosol using copper slag abrasive, Supplemental Research Training Grant, NIOSH, 1999 – 2000.

Assessment of workers' exposure to lead containing aerosols, International Lead and Zinc Research Organization (LZRO), 1994 –1996.

Assessment of workers' exposures to lead-containing aerosols during smelter remediation, Minerals Research Institute, 1993 – 1994.

Fugitive dust emissions and worker exposure during furnace slag processing, Minerals Research Institute, 1991.

Volatile organics released from water sprays, Minerals Research Institute, 1989 – 1990.

V. PEER-REVIEWED PUBLICATIONS

Hart, J.F., Ward T.J., Spear T.M., Crispen, K., Zolnikov, T.R. "Evaluation of asbestos exposures during firewood harvesting simulations in Libby, Montana – Preliminary Data," ***Ann. Occup. Hyg.*** Volume 51, Number 8, November 2007.

V. PEER-REVIEWED PUBLICATIONS (continued)

Spear, T.M., Hart, J., Stephenson, D.J., Yellowstone Winter Use Personal Exposure Monitoring, Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU), RM-CESU Cooperative Agreement Number: J1580050167, June 1, 2006.

Ward, T.J., Spear, T.M., Hart, J.; Noonan, C., Holian,A., Getman, M., Webber, J.S. "Trees as reservoirs for amphibole fibers in Libby, Montana", *Science of The Total Environment*, Vol. 367, Issue 1, August 2006.

Stephenson, D.J., Spear, T.M., Lutte, M.G. "Evaluation of a Direct Reading Sampling Method to Measure Exposure to Diesel Particulate Matter in an Underground Metal Mine," *Mining Engineering*, Vol. 58, No. 8, August 2006.

Spear, T.M., Stephenson, D.J., Yellowstone Winter Use Personal Exposure Monitoring, Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU), RM-CESU Cooperative Agreement Number: H1200040001, June 1, 2005.

Wilson, T.B., . Douglass, R.J., Spear, T.M., Hart, J.F., and Norman, J.B. "Evaluation of protective clothing for handling small mammals potentially infected with aerosol-borne zoonotic agents," *Intermountain Journal of Sciences*, Vol. 8(1), 2002.

Spear, T.M. , Stephenson, D. , Seymour, M., "Characterization of aerosol generated during abrasive blasting with copper slag," Presented at Inhaled Particles IX, Robinson College, Cambridge, UK and published in *Annals of Occupational Hygiene*, Vol. 46, Supplement, pp. 296-299, 2002.

Stephenson, D. , Spear, T.M. , Seymour, M , and Cashell, L., " Airborne Exposure to Heavy Metals and Total Particulate During Abrasive Blasting Using Copper Slag Abrasive," *Appl. Occup. Environ. Hyg.*, Volume 17(6): 437-443, 2002.

Spear, T.M., Cannell, C.E., "Mixmaster exposure to dust during mixing of wildland fire retardant chemicals," *International Journal of Wildland Fire*, Volume 11(1), pp. 65-73, 2002.

Spear, T.M., DuMond, J.W., Lloyd, C.J. and Vincent, J.H., "An Effective Protection Factor Study of Primary Lead Smelter Workers," *Appl. Occup. Environ. Hyg.*, Volume 15(2): 235-244 (2000).

Spear, T.M., Hardgrove, R., Norman, J.B., Wulf, D.T., and Rossi, R.J. "The Effects of Strapped Spectacles on the Fit Factors of Three Manufactured Brands of Full Facepiece Negative Pressure Respirators," *Ann. Occup. Hyg.*, Vol. 43 (3): 193-199 (1999).

Spear, T.M., Svee, W., Vincent, J.H., Stanisich, N. "Chemical Speciation of Lead Dust Associated With Primary Lead Smelting," *Environmental Health Perspectives*. Vol. 106(9): 565-571 (1998).

Spear, T.M., Werner, M.A., Bootland, J.H., Murray, E.P., Gurumurthy, R. and Vincent, J.H. "Assessment of Particle Size Distributions of Health-Relevant Exposures of Primary Lead Smelter Workers," *Ann Occup. Hyg.*, Vol. 42, No. 2, pp. 73-80 (1998).

Vincent, J.H., Brosseau, L.M., Ramachandran, G., Tsai, P.J., Spear, T.M., Werner, M.A., McCullough, N.V. "Current issues in exposure assessment for workplace aerosols." In: Inhaled Particles VII (ed. Ogden TL), *Annals of Occupational Hygiene 41 (Suppl. 1)*, 607-614 (1997).

Spear, T.M., Werner, M.A., Bootland, J., Harbour, A., Murray, E.P., Rossi, R. and Vincent, J.H., "Comparison of Sampling Methods for Personal Sampling of Inhalable and 'Total' Lead and Cadmium Containing-Aerosols in a Primary Lead Smelter," *Am. Ind. Hyg. Ass. J.*, 58:893-899 (1997).

Vincent, J.H., Werner, M.A., Tsai, P.-J. And Spear, T.M. (1996). "Studies of occupational aerosol exposures and the impact of introducing new criteria for standards." In: *Occupational Hygiene Solutions* (ed. G.S. Hewson), proceedings of the 15th Annual Conference of the Australian Institute of Occupational Hygienists, Tullamarine, Victoria, Australia, pp 33-41.

V. PEER-REVIEWED PUBLICATIONS (continued)

M.A. Werner, T.M. Spear and J.H. Vincent. "Investigation Into The Impact of Introducing Workplace Aerosol Standards Based On The Inhalable Fraction." Presented at the Second International Symposium on Modern Principles of Air Monitoring (Sälen, Sweden, February, 1996) and published in *The Analyst*, Vol 21 (1207-14), 1996.

VI. PROFESSIONAL PRESENTATIONS

"Evaluation of Asbestos Exposures during Firewood Harvesting Simulations in Libby, Montana". Ward, T. J., Spear, T., and Hart, J. 2008 ASTM Johnson Conference, Burlington, VT, July 15, 2008 (poster).

"Trees as Reservoirs for Amphibole Fibers in Libby, Montana". Presented at the Mine Design, Operations & Closure Conference, April 2007.

"Winter use air monitoring in Yellowstone National Park". Presented at the Pacific Northwest American Industrial Hygiene Conference, October 2006.

"Occupational exposure to Snowmobile emissions in Yellowstone National Park," Presented at the American Industrial Hygiene Conference and Exposition, May 2005.

"Occupational Exposure to Submicron Particle Mass and Number Concentrations from Diesel Emissions In an Underground Mine," Presented at the American Industrial Hygiene Conference and Exposition, May 2003.

"Demonstrating an association between exposure and risk of disease," Montana Trial Lawyers Association Scientific Evidence Seminar, April 25, 2003.

"Worker exposure to dust and heavy metals during abrasive blasting using copper slag." Presented at the Pacific Northwest American Industrial Hygiene Conference, October 2001.

"Characterization of aerosol generated during abrasive blasting with copper slag." Presented at the Inhaled Particles IX Symposium in Cambridge, UK, September 2001.

"Comparison of Methods for Personal Sampling of Inhalable and Total Abrasive Blasting Aerosol." Presented at the American Industrial Hygiene Conference and Exposition, May 2001.

"Airborne Exposure Assessment of Abrasive Blasting Aerosol Using Copper Slag Abrasive." Presented at the American Industrial Hygiene Conference and Exposition, May 2000.

"Respirator protection factors." Presented at the 19th Annual Lead Occupational Health Conference, Chicago, IL. October, 1997.

"An effective protection factor study at a primary lead smelter." Presented at and published in the abstracts of the American Industrial Hygiene Conference and Exposition, May 1996.

"The impact of introducing workplace standards based on the inhalable fraction." Presented at the Montana Safety and Health Conference, April 1996.

"Characterization of lead aerosol size distribution in a primary lead smelter." Presented at the Montana Academy of Sciences, April 1994.

"Inhalable Fungal Aerosol Exposure in a Wood Pellet Plant." Presented at the American Industrial Hygiene Conference and Exposition, May, 1993.

VII. HONORS

NIOSH Scholarship, 1978, Montana Tech.
NIOSH Scholarship, 1979, University of Minnesota
NIOSH Fellowship, 1994 – 1995, University of Minnesota

VIII. ADMINISTRATIVE EXPERIENCE

Head: Safety, Health & Industrial Hygiene Department, Montana Tech of The University of Montana
Director: Industrial Hygiene Graduate Program, Montana Tech of The University of Montana
Planning Committee: Big Sky Section American Society of Safety Engineers (on-going)
AIHA and ASSE Student Section: Faculty Representative, (on-going)
VIII. ADMINISTRATIVE EXPERIENCE (continued)

Principal Investigator, Six funded research grants
Coordinate and direct graduate student research

IX. PROFESSIONAL COMMUNITY ACTIVITIES

Member, Expert panel on "Potential Environmental Impacts of Dust Suppressants: Avoiding Another Times Beach". Sponsored by U.S. Environmental Protection Agency and the University of Nevada Las Vegas.
Faculty Representative, AIHA and ASSE Student Section (on-going)

X. UNIVERSITY COMMUNITY ACTIVITIES

Member, Curriculum Review Committee, Montana Tech of The University of Montana
Member, Chancellor's Advisory Committee, Montana Tech of The University of Montana

XI. PROFESSIONAL SOCIETIES

American Industrial Hygiene Association
British Occupational Hygiene Society
Americas Section, International Society for Respiratory Protection

DEPOSITION AND TRIAL TESTIMONY

CASE NAMES	TYPE of TESTIMONY	CASE NO.	COURT LOCATION
Cool vs. Saberhagen	Depo	04-2-08167-0 SEA	Superior Court WA, King Co
Ellington v. Rocky Mtn Homestead	Depo & Trial	CDV-01-327	MT 8th Judicial District Court, Cascade County
Richard K. Thomas v. David Paul Weyers, McGowan Commercial Co. & John Does I-III	Depo & Trial	DV-03-180	MT 2nd Judicial District Court, Silver Bow County
Ferterrer v Burlington Northern Santa Fe Railroad (BNSF)	Depo & Trial	ADV-90-521-B	MT 2nd Judicial District Court, Silver Bow County
Uriarte v Tash	Depo	BDV-96-1038	MT 1st Judicial District Court, Lewis & Clark County
Carver v Great Falls Int'l Airport Authority	Depo	ADV-00-730	Federal District Court Montana
Gardiner v Golden Sunlight Mine	Depo & Trial	DV-98-220	MT 19th Judicial District Court, Lincoln County
Warner v W.R. Grace	Depo	DV-96-5	MT 19th Judicial District Court, Lincoln County
Craig v W.R. Grace	Depo	DV-97-153	MT 19th Judicial District Court, Lincoln County
Cannon v W.R. Grace	Depo	DV-96-11	MT 19th Judicial District Court, Lincoln County
Finstad v W.R. Grace	Depo	DV-98-139	MT 19th Judicial District Court, Lincoln County
Shockley v Burlington Northern Santa Fe (BNSF) Railway	Depo	ADV01-816	MT 8th Judicial District Court, Cascade County
Hurlbert v W.R. Grace	Depo & Trial	DV-95-109	MT 19th Judicial District Court, Lincoln County
Kaeding v W.R. Grace	Depo	DV-96-71	MT 19th Judicial District Court, Lincoln County
Riley v W.R. Grace	Depo	DV-96-111	MT 19th Judicial District Court, Lincoln County
Skramstad v W.R. Grace	Depo & Trial	DV-95-127	MT 19th Judicial District Court, Lincoln County
Benefield v W.R. Grace	Depo & Trial	DV-96-170	MT 19th Judicial District Court, Lincoln County
Lyle v W.R. Grace	Depo & Trial	DV-95-29	MT 19th Judicial District Court, Lincoln County
Shearer v W.R. Grace	Depo	DV-97-140	MT 19th Judicial District Court, Lincoln County
Ryan v W.R. Grace	Depo	DV-98-100	MT 19th Judicial District Court, Lincoln County
Hopkins v W.R. Grace	Depo	DV-99-133	MT 19th Judicial District Court, Lincoln County
Dedrick v W.R. Grace	Depo	DV-99-124	MT 19th Judicial District Court, Lincoln County
Gunderson v Paffhausen, et al	Depo	DV-01-191	MT 2nd Judicial District Court, Silver Bow County
Crill v. Int'l Paper Co., et al	Depo	WCC No.2001-0408	Workers' Comp Court, State of Montana
Flesher v. Int'l Paper Co., et al.	Depo	WCC No.2002-0661	Workers' Comp Court, State of Montana

EXHIBIT
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Hildreth v Cominco & MOIG	Depo	DV-29-2003-1	MT 5th Judicial District Court, Madison County
Fox v Alcoa	Depo	03-2-39973-6 SEA	Superior Court WA, King Co
Jonnson v Burlington Northern Santa Fe (BNSF) Railway	Depo	DV-04-42	MT 9th Judicial District Court, GlacierCounty
Geldard v Burlington Northern Santa Fe (BNSF) Railway	Depo	DV-02-0743	MT 13th Judicial District Court, Yellowstone County
Doug Kratz v. Burlington Northern Santa Fe (BNSF) Railway	Depo	DV 04-0924	MT 13th Judicial District Court, Yellowstone County
Michelle Yother vs. Butte Leaseback Partnership, Cause No.	Depo	DV-04-258	MT 2nd Judicial District Court, Silver Bow County
Countryman v. Homelands Development and C&H Eng	Depo	DV-04-708	MT 18th Judicial District Court, Gallatin County
Melvin Visser v. Timberline Insulation, Inc. and Custom II	Depo	DV 05-587	MT 18th Judicial District Court, Gallatin County
Clinton Hagen v. State of Montana	Depo	DDV-03-1069	MT 8th Judicial District Court, Cascade County
Rose v. True Oil	Depo	CV 07-04-BLG-RFC	MT 16th Judicial District Court, Rosebud County
Rosemary A. McGill vs. BNSF	Depo	Case No. 2004CV9954	District Court, County of Denver Colorado
Frances H. Gallimore v. Garlock Sealing Technologies, LLC, et al.,	Depo	At Law No. 37336P-03	Circuit Court for 6 the City of Newport News, Virginia
Howard Stone vs. Atlantic Richfield Co.	Depo	DDV-04-967	MT 8th Judicial District Court, Cascade County
Charles E. Eastham v. Burlington Northern and Santa Fe Railway	Depo	Civil Action No. 4:07 cv 3115	USDC Nebraska
Raymond Johnson vs. International Paper Co.	Depo & Trial	WCC NO. 2004-1092	Workers' Comp Court, State of Montana